

REMARKS

The Office Action dated August 9, 2000 (Paper No. 6) has been carefully reviewed and the foregoing amendments made in response thereto. Reconsideration of the grounds of rejection is respectfully requested in view of the above amendments and the remarks herein.

Summary of the Office Action

Claims 1-2, 4, 6-7, 9, 11-13 and 15 are rejected under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 5,384,643 to *Inga et al.* (Inga '643).

Claims 3, 5, 8, 10 and 14 are rejected under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 5,384,643 to *Inga et al.*, or alternatively, are rejected under 35 U.S.C. § 103(a) as obvious over Inga '643.

The Amendment to the Claims

Applicants have amended claim 1 in order to better define the medical imaging system. Accordingly, claims 1-15 are presently under consideration.

The Rejection under 35 U.S.C. § 102(b)

Claims 1-2, 4, 6-7, 9, 11-13 and 15 are rejected under 35 U.S.C. § 102(b) as being anticipated by *Inga* '643.

In particular, the Office Action asserts that *Inga* '643 teaches:

a removable medium recording system for use in a medical imaging system that includes:

- a medical scanner than scans a patient and creates medical image data (col 9, lines 67-69 and col. 10, lines 1-4);

- a computer workstation coupled to the medical scanner, said computer workstation including a first storage device capable of storing data on a first nonremovable storage medium (col. 10, lines 4-6 referring to the computer H/D) and a second storage device capable of storing data on a removable storage medium of a first type (col. 10, lines 9-22; referring to compact disk 48), said first storage device operative to initially store medical image data received from said medical scanner (col. 10, lines 18-22);

- said removable medium recording medium comprising:

- a third storage device capable of storing data on a second nonremovable storage medium (col. 9, lines 5-6 and see Figures 2 and 3; referring to local data modem 42), said third storage device initially storing medical image data received from said computer workstation (storage and retrieval means 16; col. 9, line 6; see also Figures 2 and 3); and

- a fourth storage device capable of storing data on a removable storage medium of a second type (col. 9, lines 6-7; referring to disk storage drive 46), said fourth storage device storing medical image data received from said computer workstation onto said removable storage medium of a second type, wherein said fourth storage device effectively replaces said second storage device in said computer workstation;

- and wherein the computer workstation is a digital imaging and communications compliant (col. 9, lines 67-68 and col. 10, lines 1-6).

Applicants respectfully traverse the rejection under 35 U.S.C. § 102(b).

First, claim 1 is directed to a removable medium recording system for use in a medical imaging system. The first and second limitations of claim 1 are directed to the medical imaging system; only the third and fourth limitations are directed to the removable medium recording system itself. Claim 1 has been modified to clarify the distinction.

The first limitation requires that the medical imaging system have a “medical scanner that scans a patient and creates medical image data”. The Office Action asserts that this is taught by digitized image source(s) 24 such as CAT 64, MRI 66 and/or video 68, *Inga* '643, col. 9, lines 67-69. (Office Action page 3, lines 1-2). This is shown highlighted in reproduced Fig. 3 of *Inga*

'643, reproduced below. The second limitation to claim 1 requires that the medical imaging system also comprise “a computer workstation coupled to the medical scanner, said computer workstation including a first storage device capable of storing data on a first nonremovable storage medium”. The Office Action asserts that *Inga* '643, col. 10, lines 4-6, referring to the hard drive attached to the control computer 70, teaches this. This is also highlighted in Fig. 3, reproduced below.

The second limitation to claim 1 recites “and a second storage device capable of storing data on a removable storage medium of a first type”. The Office Action asserts that *Inga* '643, col 10, lines 9-22, referring to compact disk 48 teaches this. As shown in Fig. 3 of *Inga* '643, CD 48 works with optional CD write/RAM card drive 90, which is operatively coupled through selector switch 88 to CD reader drives 82. This is also highlighted in reproduced Fig. 3.

Therefore, the Office Action asserts that the medical imaging system comprising a medical scanner and a computer workstation as claimed in claim 1 of the present invention is shown as highlighted in Fig. 3, reproduced below. However, the limitations of claim 1 require that the computer workstation in the medical imaging system *include* the first storage device and the second storage device. As shown in the highlighted Fig. 3 of *Inga* '643, control computer 70 includes the hard drive however, CD 48 is not part of the control computer.

The only way to consider CD 48 to be included in the control computer is through the connections through CD Write device 90, Selector 88, CD Reader 82, Auto Disk Store 76, CD Write Drive 74, Multiplexer 60 and conductor 71. Applicants submit that this type of “inclusion” is far too tenuous. Moreover, even accepting that CD 48 can thus be considered to

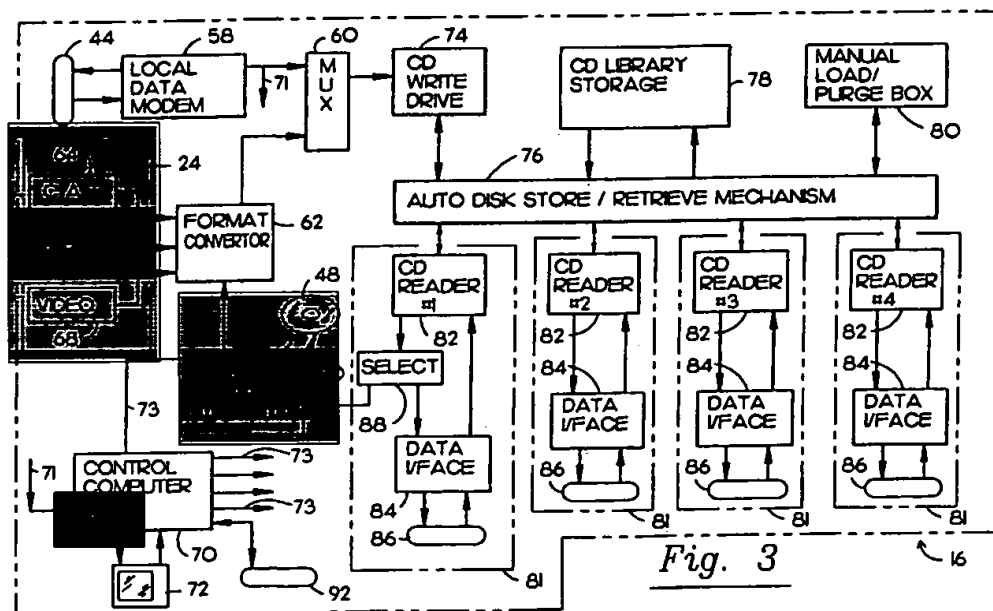
be included with control computer, which Applicants do not, the second limitation of claim 1 additionally requires "said first storage device operative to initially store medical image data received from said medical scanner". The Office Action asserts that medical image data is created by CAT 64, MRI 66 and/or video 68. (Office Action, page 3, lines 1-2) There is simply no indication anywhere in Fig. 2 or 3 of Inga '643, or any disclosure in Inga '643 that the hard drive on control computer 70 is used to initially store this medical image data.

Furthermore, claim 1 additionally requires that the removable medium recording system comprises "a third storage device capable of storing data on a second nonremovable storage medium". The Office Action at page 3, line 11 asserts that this limitation is taught by local data modem 42 shown in Fig. 2, and described at col. 9, lines 5-6. As one skilled in the art knows, a data modem cannot be used to store data. *Inga* '643 states at Col 9, line 5, "transmitted through the local data modem 42 and transmission connector 44 to the image data storage and retrieval means 16 or a compact disk data storage drive 46." If the requirement for a third storage device is read upon the image data storage and retrieval means 16, then it does not teach this element of claim 1. As is shown in Fig. 3, image data storage and retrieval means 16 *includes* the medical imaging system control computer 71, along with its hard drive, and CD 48. To read the third storage device upon image data storage means 16 would mean that the third storage device *includes* the aforementioned first and second storage devices and medical imaging system.

On the other hand, the present specification states that "the storage device with the removable recording station functions independently of the workstation" at page 12, lines 1-5.

Inga '643 does not show the control computer 71 working independently of any of the other devices.

In addition, the Office Action asserts that storage and retrieval means 16 is a “third storage device initially storing medical image data received from said computer workstation”, as additionally required by the third limitation of claim 1 of the present invention. As before, the Office Action has already asserted that control computer 71 reads upon the computer workstation, and as control computer 71 is part of image storage and retrieval device 16, it cannot send medical image data to storage and retrieval means 16. In addition, claim 1 has been amended to claim that the computer workstation is a stand-alone computer workstation. The control computer 71 shown in *Inga* '643 is part of the image storage and retrieval device, and is not a stand-alone computer workstation.



Moreover, claim 1 additionally requires “a fourth storage device capable of storing data on a removable storage medium of a second type”. The Office Action asserts that this limitation reads upon disk storage drive 46. *Inga* '643 at col. 9, lines 5-6 states that element 46 is “a compact disk data storage drive”, and likewise Fig. 2 of *Inga* '643 shows that element 46 is a CD data storage drive. As this limitation of claim 1 further requires that “fourth storage device capable of storing data on removable medium of a second type”, CD data storage drive 46 cannot be read upon this limitation as CD 48 was read upon the earlier limitation of a “removable storage medium of a first type”. Both CD 48 and CD 46 are CDS - they are not different types of removable storage mediums, they are the *same* type. Therefore, the fourth limitation of claim 1 cannot read on CD 46 if the second limitation reads upon CD 48.

Furthermore, the fourth limitation of claim 1 requires that the “fourth storage device effectively replaces said second storage device in said computer workstation.” If the computer workstation reads upon the hard drive of the control computer 70, as asserted by the Examiner, then CD 46 does not replace CD 48. CD 46 is not even connected to the control computer 70.

In addition, the Examiner does not provide an explanation as to why *Inga* '643 teaches a Digital Image and Communications Compliant (DICOM) computer workstation, as required by claim 2 of the present invention. *Inga* '643 at col 9, lines 67-68 and col 10, lines 1-6 mentions nothing about the DICOM standard.

DICOM (Digital Imaging and Communications in Medicine) is a protocol for the transmission of medical images, waveforms, and ancillary information. It was originally

developed by the National Electrical Manufacturers Association (NEMA) and the American College of Radiology for CAT and MRI scan images. It is now controlled by the DICOM Standards Committee, and supports a wide range of medical images across the fields of radiology, cardiology, pathology and dentistry.

As the present specification teaches on Page 6, lines 4-15, it “is a feature of the present invention that the peripheral-type removable medium recording station enables a hospital or other medical service provider to use new storage formats ... and mediums ... without modifying existing medical systems and networks”, and on Page 21, lines 8-12, “the patient study on the removable medium can be viewed by any DICOM-compliant viewing station... separate viewing hardware can be located in surgery 210, in the ICU 212, in a conference/teaching session 214, in oncology 216, in a physician office 218 or in a physician home/laptop system, 220.” By using DICOM, the present invention provides a device that can be plugged in to any medical network. *Inga* '643 does not teach using this standard protocol; rather, any CD created in the system taught by *Inga* '643 can only be used by that type of system.

The Examiner does not state reasons as to why claims 6-7, 9, 11-13 and 15 are taught by *Inga* '643. As Applicants believe that *Inga* '643 does not teach these claims, Applicants respectfully request that the Examiner provide specific reasons as to why these claims are rejected under 35 U.S.C. § 102(b).

Claims 3, 5, 8, 10 and 14 are rejected under 35 U.S.C. § 103(a) as being obvious over *Inga* '643. The Examiner asserts that the second and fourth storage devices are taught by CD drive 46 and CD 48. As discussed earlier, claim 1 requires that the second and fourth storage

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devices be of different types. CD 46 and CD 48 are not different types. In addition, the Examiner does not state reasons as to why claims 8, 10 and 14 are obvious over *Inga* '643.

Accordingly, applicants respectfully request the withdrawal of the 35 U.S.C. § 102 (b) and 103(a) rejections and the timely allowance of claims 1-15.

CONCLUSION

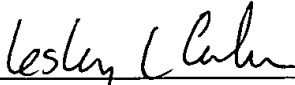
In view of the foregoing, Applicants respectfully request reconsideration and reexamination of claims 1-15 and the timely allowance of these claims.

If there are any other fees due in connection with the filing of this response, please charge the fees to our Deposit Account No. 50-0310. If a fee is required for an extension of time under 37 C.F.R. 1.136 not accounted for above, such an extension is requested and the fee should also be charged to our Deposit Account.

Respectfully submitted,

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